

**College of Co-operation, Banking & Management, Vellanikkara**

**M.Sc. Development Economics**

**1. Major Subjects (Minimum 20 credits to be offered)**

<b>Sl. No.</b>	<b>Catalogue no.</b>	<b>Course title</b>	<b>Credit</b>
1	ECON 501	Micro Economics I	1+1
2	ECON 502	Micro Economics II	1+1
3	ECON 503	Macro Economics I	1+1
4	ECON 504	Macro Economics II	1+1
5	ECON 505	International trade and Development I	1+1
6	ECON 506	International trade and Development II	1+1
7	ECON 507	History of Economic thought	2+0
8	ECON 508	Economic growth and Development	2+0
9	ECON 509	Research Methodology for social sciences	1+1
10	ECON 510	Indian Economic Development and Policies	2+0
11	ECON 511	Gender and Development	1+1
12	ECON 512	Poverty, Inequality and Rural Development	2+1
13	ECON 513	Environment and Development	1+1
14	ECON 514	Labour Economics	2+0

15	ECON 515	Mathematical Economics	2+1
16	ECON 516	Econometric Methods and applications	2+1
17	ECON 517	Behavioural Economics	2+0

### 1. ECON 501 Micro Economics I (1+1)

Consumer Behaviour under Uncertainty and Risk Choice under uncertainty- Representing uncertainty by Probability distributions- Expected Value and Variability- Maximising expected utility- Fair gambles and expected utility hypothesis- St. Petersburg paradox-Neumann-Morgenstern utility index- Friedman Savage hypothesis-Markowitz hypothesis- Utility functions and attitudes towards risk- Network externalities- Bandwagon effect, Snob effect and Veblen effect- Empirical estimation of demand- Linear demand curve, Constant elasticity demand function- Dynamic versions of demand functions

Nerlove, Houthakker and Taylor-Linear expenditure system- Characteristic approach to demand function.-Theory of Production and Costs Short run and long run production function- returns to scale- elasticity of substitution -Homogeneous production function- Linear homogeneous production function- Fixed proportion production function- Cobb Douglas production function and CES production function- Technological progress and production function

Cost function- Cost minimising input choices- properties of cost functions- Economies of scope- The Learning curve – Estimating and Predicting cost- Short run and long run distinction

Theory of Imperfect Markets Oligopoly- Characteristics- Collusive versus non-collusive oligopoly- Non-collusive models Cournot model- Bertrand model- Chamberlin's model- Kinked demand curve model of Sweezy- Stackelberg's model- Welfare properties of duopolistic markets- Collusive models Cartels and Price leadership

Theory of Games Basic concepts-Cooperative versus non-cooperative game- Zero sum versus non- zero sum game- Prisoner's dilemma- Dominant strategies- Nash equilibrium- Prisoner's dilemma- Pure strategies- Mixed strategies- repeated games- Sequential games- Threats, commitments and credibility

## Practicals

Measuring risk quantitatively- Measuring the outcome probability for two jobs-Preference towards risk-Measuring risk premium-Measuring expected utility-Measuring the value of information-Measuring expected return of a project-Drawing utility function representing the behaviour of an individual as risk lover, risk averter and risk neutral-Estimation of demand- Production function-long run and short run-Finding the slope of the product curve-Comparing labour productivity in developed and developing countries-Different equilibrium conditions in different market situations-finding monopoly power-Finding Nash equilibrium-Iso quants, Types and marginal rate of technical substitution-cobb Douglas production function-Concepts of costs.

## Lesson Plan

Sl. No.	Topic	Hours of Lecture
1	Consumer Behaviour under Uncertainty and Risk Choice under uncertainty- Representing uncertainty by Probability distributions- Expected Value and Variability- Maximising expected utility	1
2	Fair gambles and expected utility hypothesis- St. Petersburg paradox- Neumann-Morgenstern utility index- Friedman Savage hypothesis- Markowitz hypothesis	1
3	Utility functions and attitudes towards risk- risk neutrality, risk aversion, risk preference, certainty equivalent	1
4	Demand for risky assets- reducing risks diversification, insurance, flexibility, information- The state preference approach to choice under uncertainty	1
5	Market Demand for Commodities Deriving market demand- Network externalities- Bandwagon effect, Snob effect and Veblen effect, Empirical estimation of demand- Linear demand curve, Constant elasticity demand function	1
6	Dynamic versions of demand functions-Nerlove, Houthakker and Taylor-Linear expenditure system- Characteristic approach to demand function	1

7	Theory of Production and Costs Short run and long run production function- returns to scale	1
8	Elasticity of substitution -Homogeneous production function- Linear homogeneous production function	1
9	Fixed proportion production function- Cobb Douglas production function and CES production function- Technological progress and production function	1
10	Cost function- Cost minimising input choices- properties of cost functions	1
11	Economies of scope- The Learning curve – Estimating and Predicting cost- Short run and long run distinction	1
12	Theory of Imperfect Markets Oligopoly- Characteristics- Collusive versus non-collusive oligopoly-	1
13	Non-collusive models -Cournot model- Bertrand model- Chamberlin's model	1
14	Kinked demand curve model of Sweezy- Stackelberg's model	1
15	Welfare properties of duopolistic markets- Collusive models -Cartels and Price leadership	1
16	Theory of Games -Basic Concepts-Cooperative versus non-cooperative game- Zero sum versus non- zero-sum game	1
17	Prisoner's dilemma- Dominant strategies- Nash equilibrium	1
18	Prisoner's dilemma- Pure strategies- Mixed strategies- repeated games- Sequential games- Threats, commitments and credibility	1
<b>Total</b>		<b>18</b>

### Practical schedule

Sl. No	Topic	Practical Hour
1	Measuring risk quantitatively- Measuring the outcome probability for two jobs	2
2	Preference towards risk-Measuring risk premium	2
3	Measuring expected utility-Measuring the value of information- Measuring expected return of a project	4

4	Drawing utility function representing the behaviour of an individual as risk lover, risk averter and risk neutral	2
5	Estimation of demand	4
6	Production function-long run and short run-Finding the slope of the product curve	2
7	Comparing labour productivity in developed and developing countries	2
8	Different equilibrium conditions in different market situations	4
9	Finding monopoly power	2
10	Finding Nash equilibrium	4
11	Iso quants, Types and marginal rate of technical substitution	4
12	Cobb Douglas production function	2
13	Concepts of costs.	2
<b>Total</b>		<b>36</b>

## Reference

1. Baumol, William J. Economic theory and operations analysis. PHI
2. Dorfman, Robert, Paul Anthony Samuelson, and Robert M. Solow. Linear programming and economic analysis. Courier Corporation, 1958.
3. Kundu, Amitabh. Input-output framework and economic analysis. Centre for the Study of Regional Development, Jawaharlal Nehru University, 1976.
4. Allen, RGD Mathematical Analysis for Economics, ELBS & Mc Millan, London, 1974
5. Pindyck, Rubinfeld, and D. L. Rubinfeld Mehta: "Microeconomics" Education Asia.
6. Salvatore, Dominick Microeconomic Theory and Applications, Tata Mcgraw Hill
7. David M Kreps Microeconomics for Managers, WW Norton, New York, 2004.
8. Carroll, Thomas M. Microeconomic theory: concepts and applications. Vol. 1. St. Martin's Press, 1983.
9. James M. Henderson and Richard E. Quandt, Microeconomic Theory-A Mathematical Approach, 1958. (1960): 112-118.

## 2. ECON 502 Micro Economics II (1+1)

Capital and the rate of return- Determining the rate of return- Demand for future goods-Utility maximisation- Effects of changes in Supply of future goods- Equilibrium price of future goods- Rate of return- Real interest rates and nominal interest rates- Pricing of risky assets- The firm's demand for capital- The net present value criterion for capital investment decisions-

Adjustment for risks- Diversification versus non-diversifiable risks- The capital assets pricing model.

General Equilibrium and Welfare Economics Elements of general equilibrium analysis- General equilibrium of exchange- General equilibrium of production- Efficiency of competitive markets

Welfare economics- Criteria of social welfare-Pareto optimality-Kaldor-Hicks compensation criterion- Scitovsky criterion Deriving a Social welfare function- Theory of second best- Arrow's impossibility theorem Rawls theory of justice- First Theorem of welfare economics- Second Theorem of welfare economics- Externalities and Public Goods Externalities-Negative externalities in consumption and production-Positive externalities in consumption and production-Externalities and inefficiency-Ways of correcting market failure

Externalities and property rights- Coase theorem- Common property resources Tragedy of commons-Public goods-Characteristics- Public goods and market failure Provision of public goods- Free rider problem- Lindahl pricing- Asymmetric information Asymmetric information- Implications of asymmetric information- The lemons problem Adverse selection- Hidden information- Moral hazard (hidden action)- Insurance markets Market signalling- Principal-agent problem- The efficiency wage theory

Behavioural Economics Behavioural economics- Reference points and consumer preferences- Rules of thumb and biases in decision making.

### **Practical**

Pricing of risky assets-Measuring present discount value-Valuing payment streams-Calculating value of bond- Calculating real and nominal interest rate-Net present value calculation- Investment decision by the consumers-Cost and Benefit analysis-understanding problem of moral hazard with mathematical expressions-Report of principal agent problem in any of the public enterprise-Finding out the problem on not defining property rights in your locality.

## Leeson Plan

Sl. No.	Topic	Hours of Lecture
1	Capital and the rate of return- Determining the rate of return- Demand for future goods-Utility maximisation- Effects of changes in r	1
2	Supply of future goods- Equilibrium price of future goods- Rate of return- Real interest rates and nominal interest rates	1
3	Pricing of risky assets- The firm's demand for capital- The net present value criterion for capital investment decisions- Adjustment for risks- Diversification versus non diversifiable risks -The capital assets pricing model	1
4	General Equilibrium and Welfare Economics Elements of general equilibrium analysis	1
5	General equilibrium of exchange- General equilibrium of production- Efficiency of competitive markets	1
6	Welfare economics- Criteria of social welfare--Pareto optimality- Kaldor-Hicks compensation criterion- Scitovsky criterion	1
7	Deriving a Social welfare function- Theory of second best- Arrow's impossibility theorem	1
8	Rawls theory of justice- First Theorem of welfare economics- Second Theorem of welfare economics	
9	Externalities and Public Goods Externalities-Negative externalities in consumption and production-Positive externalities in consumption and production	1
10	Externalities and inefficiency-Ways of correcting market failure- Externalities and property rights	1
11	Coase theorem- Common property resources- Tragedy of commons	1
12	Public goods-Characteristics- Public goods and market failure -Provision of public goods	1
13	Free rider problem- Lindahl pricing	1
14	Asymmetric information Asymmetric information- Implications of asymmetric information	1

15	The lemons problem Adverse selection- Hidden information- Moral hazard (hidden action)	1
16	Insurance markets Market signalling- Principal-agent problem- The efficiency wage theory	1
17	Behavioural Economics-Behavioural economics- Reference points and consumer preferences- Rules of thumb and biases in decision making. Rules of thumb and biases in decision making.	2
<b>Total</b>		<b>18</b>

### Practical Schedule

Sl. No	Topic	Practical Hour
1	Pricing of risky assets	4
2	Measuring present discount value	2
3	Valuing payment streams	4
4	Calculating value of bond	2
5	Calculating real and nominal interest rate	2
6	Net present value calculation	4
7	Investment decision by the consumers	2
8	Cost and Benefit analysis	4
9	Understanding problem of moral hazard with mathematical expressions	4
10	Report of principal agent problem in any of the public enterprise	4
11	Finding out the problem on not defining property rights in your locality.	4
<b>Total</b>		<b>36</b>

### References

1. Walter Nicholson and Christopher Snyder (2017): Microeconomic Theory- Basic Concepts and Extensions, 12th edition, Cengage Learning India Private Limited.
2. Andrew Schotter (2009): Microeconomics: A Modern Approach- 1 st edition, South Western Cengage Learning.
3. Michael E Wetzstein (2013): Micro economic Theory- Concepts and Connections, 2 nd edition, Routledge.



4. Robert S Pindyck and Daniel L Rubinfeld (2017): Microeconomics- 8 th edition, Pearson.
5. Thomas J Nechyba (2010): Microeconomics: An Intuitive Approach with Calculus- 1 st edition, South Western Cengage Learning.
6. Andreu Mas-Colell, Michael D Whinston and Jerry R Greene (1995): Microeconomic Theory- 1 st edition, Oxford University Press.
7. Geoffrey A Jehle (2010): Advanced Microeconomic Theory- 3 rd edition, Prentice Hall
8. Hall R Varian (2014): Intermediate Microeconomics- A Modern Approach, WW Norton and Co.
9. Jeffrey M Perloff (2019): Microeconomics -7 th edition, Pearson
10. Hugh Gravelle and Ray Rees (2007): Microeconomics- 3 rd edition, Pearson Education
11. Edgar K Browning and Mark Zupan (2011): Microeconomics: Theory and Applications 3 rd edition.
12. Dominick Salvatore (2009): Principles of Microeconomics – 5 th edition, Oxford University Press.
13. A Koutsoyiannis (1979): Modern Microeconomics- 2 nd edition, Macmillan.
14. Robert Y Awh (1976): Microeconomics: Theory and Applications- John Wiley & Sons
15. Watson and Getz (2004): Price Theory and its Uses- 5 th edition, AITBS Publishers and Distributors.
16. James H Henderson and Richard E Quandt (1980): Microeconomic Theory: A Mathematical Approach- 8 th edition, McGraw-Hill
17. G S Madalla and Ellen Miller (1989): Microeconomics: Theory and Applications- 1 st edition, Tata McGraw-Hill.

### **3. ECON 503 Macro Economics (1+1)**

Data and Measurement of Macro Economic Aggregates in India Data and measurement of National Income aggregates, inflation, unemployment, export, import, Balance of Trade and Balance of Payments.-Behavioural foundations of Macroeconomics Consumption Function, Keynes Psychological Law, Kuznet's consumption puzzle, Fisher's inter-temporal Choice Model, Permanent Income Hypothesis, Life Cycle Hypothesis and Relative Income Hypothesis, Random walk model of consumption, Investment Function, Neo-Classical Theory of Investment, Tobin's q-ratio, Accelerator Theory of Investment-Demand for and Supply of Money Demand for Money: Keynes Liquidity Preference Theory, Friedman's Restatement of Quantity Theory of Money, Baumol's Inventory Theory, Port Folio Balance Theory, Liquidity Theory (Radcliff Sayer's Version & Gurley and Shaw Version). Supply of Money: Measures of Money supply, Behavioural Theory of Money Supply, Money Multiplier process, The H Theory of Money Supply-Macroeconomic Equilibrium and Policy One sector Neo-classical

Model, One sector Keynesian Model, Derivation of IS and LM, IS-LM General Equilibrium, Three sector IS-LM Model, concepts of Aggregate Demand and Aggregate Supply, IS-LM analysis in open economy framework. Effectiveness of Monetary and Fiscal policy using IS-LM framework. Unemployment and Labour Market: Demand for labour and supply of labour, Neo classical and Keynesian labour market, Concepts of Wage rigidity versus wage flexibility- Theories of Business Cycles Concept of Business Cycle, Hawtrey's Monetary Theory, Hayek's Over Investment Theory, Schumpeter's Innovation Theory, Multiplier Accelerator Theory, Kaldor's Model of trade cycle, Political Business Cycle Theory.

### Practical

Measuring macroeconomic aggregates-Measuring national income- Estimation of inflation rate –Index numbers Recent trend in inflation -Problems on APS,APC,MPC,MPS,- Measurement of unemployment-Calculating BOP and BOT of India since Independence- Estimating consumption function-Measuring the investment behaviour by Tobin's q ratio- Exercises on Accelerator and multiplier-Measurement of Supply of money-Money multiplier-Trends in velocity of money-Estimation of the business cycle passed by India since last 50 years-Prepare a report on Unemployment rate in India since reforms

### Lesson Plan

Sl.No	Topic	Hours of Lecture
1	Data and Measurement of Macro Economic Aggregates in India Data and measurement of National Income aggregates	1
2	Inflation, unemployment, export, import, Balance of Trade and Balance of Payments	1
3	Behavioural foundations of Macroeconomics Consumption Function, Keynes Psychological Law, Kuznet's consumption puzzle, Fisher's inter-temporal Choice Model	2
4	Permanent Income Hypothesis, Life Cycle Hypothesis and Relative Income Hypothesis, Random walk model of consumption	2
5	Investment Function, Neo-Classical Theory of Investment, Tobin's q-ratio, Accelerator Theory of Investment	1

6	Demand for and Supply of Money Demand for Money: Keynes Liquidity Preference Theory, Friedman's Restatement of Quantity Theory of Money	2
7	Baumol's Inventory Theory, Port Folio Balance Theory, Liquidity Theory (Radcliff Sayer's Version & Gurley and Shaw Version).	1
8	Supply of Money: Measures of Money supply, Behavioural Theory of Money Supply, Money Multiplier process -The H Theory of Money Supply	1
9	Macroeconomic Equilibrium and Policy One sector Neo-classical Model, One sector Keynesian Model	1
10	Derivation of IS and LM, IS-LM General Equilibrium, Three sector IS-LM Model, concepts of Aggregate Demand and Aggregate Supply, IS-LM analysis in open economy framework. Effectiveness of Monetary and Fiscal policy using IS-LM framework	2
11	Unemployment and Labour Market: Demand for labour and supply of labour, Neo classical and Keynesian labour market, Concepts of Wage rigidity versus wage flexibility	1
12	Theories of Business Cycles Concept of Business Cycle, Hawtrey's Monetary Theory	1
13	Hayek's Over Investment Theory, Schumpeter's Innovation Theory, Multiplier Accelerator Theory	1
14	Kaldor's Model of trade cycle, Political Business Cycle Theory.	1
<b>Total</b>		<b>18</b>

### Practical Schedule

Sl.No	Topic	Practical Hours
1	Measuring macroeconomic aggregates-Measuring national income	3
2	Estimation of inflation rate	3
3	Index numbers Recent trend in inflation	3
4	Problems on APS,APC,MPC,MPS	3
5	Measurement of unemployment	3
6	Calculating BOP and BOT of India since Independence	3

7	Estimating consumption function	3
8	Measuring the investment behaviour by Tobin's q ratio-Exercises on Accelerator and multiplier	2
9	Measurement of Supply of money	3
10	Money multiplier	2
11	Trends in velocity of money	3
12	Estimation of the business cycle passed by India since last 50 years	3
13	Prepare a report on Unemployment rate in India since reforms	2
<b>Total</b>		<b>36</b>

### Reference

1. Mankiw, N. Gregory. "Macroeconomics Worth Publishers." (2002).
2. Froyen, Richard T. (2005) 'Macroeconomics: Theories and Policies', Pearson (LPE), seventh ed.
3. Snowden, Brian, and Howard R. Vane. Modern macroeconomics: its origins, development and current state. Edward Elgar Publishing, 2005.
4. Levacic, Rosalind. Macroeconomics: an introduction to Keynesianneoclassical controversies. 1982.
5. Samuelson and Nordhaus (1998) 'Macroeconomics', 16th ed. Irwin McGraw hill
6. Phelps, Edmund S. Seven schools of macroeconomic thought: the Arne Ryde memorial lectures. Vol. 1. Oxford University Press on Demand, 1990.
7. Dornbusch, Rudiger; Stanley Fisher and Richard Startz (2004) 'Macroeconomics' , Tata Mc Graw Hill, 9th ed
8. Plosser, Charles I. "Understanding real business cycles." The Journal of Economic Perspectives 3.3 (1989): 51-77.
9. Heap, Shaun P. Hargreaves. "The New Keynesian Macroeconomics." Books (1992). Time, Belief and Social Independence', Edward Elgar Publishing
10. D'Souza, Errol (2008) 'Macroeconomics', Pearson
11. Harcourt C. (ed), (1997) The Micro Economic Foundations of Macro Economics, Macmillan.
12. Junekar P.N, (1972), Investment, Theories and Evidence, Macmillan.
13. Fred R Glahe, (1985) Macro Economics Theory and Policy, Harcourt Publishers, New Delhi.

14. Veneries and Sebold, (1977) *Macroeconomics, Models and Policies*, John Wiley & Sons.
15. Gibson, William E. Kaufman, George G. William E. Gibson, and George G. Kaufman. *Monetary economics: readings on current issues*. No. 332.4/G44m. 1971.
16. Gurley, John G. *Money in a Theory of Finance*. The Brookings Institution, 1970.
17. Laidler, David EW, and J. Michael Parkin. "Inflation: a survey." *Surveys of Applied Economics*. Palgrave Macmillan UK, 1977. 169-237.
18. Gupta, Suraj B. *Monetary Economics (institutions, Theory And Policy)*. S. Chand, 1982.

#### **4. ECON 504 Macro Economics II (1+1)**

Classical Tradition and Keynesian Revolution Important postulates of Classicals, Keynes' interpretation of classical postulates – Keynes interpretation of Great Depression – Keynes policy prescriptions – Unemployment and inflation – cost of unemployment and Okun's Law – cost of inflation and sacrifice ratio – misery index, Unemployment and inflation trade off and the Philips Curve.

Monetarist School Monetarists' view on Great Depression. Debates on Policy Effectiveness: inside lag and outside lag, Monetarists' rules versus discretion, Time Inconsistency, Adaptive Expectation Hypothesis and NAIRU, Expectations Augmented Philips Curve, The monetary approach to the Balance of Payments theory

New Classical School Structure of New classical models – Rational Expectations Hypothesis, Continuous market clearing and The Aggregate Supply Hypothesis, Output and Employment in the New Classical Model, Lucas Critique and policy ineffectiveness, Barro-Ricardo equivalence and fiscal policy. Reasons for the failure of Barro-Ricardian equivalence: liquidity constraints, myopia and uncertainty

Real Business Cycle School Inter-temporal substitution of labour, Real Business Cycle Theory – technology shocks, neutrality of money and flexibility of wages and prices. Real Business Cycle view on Great Depression

New Keynesian and Supply Side Economics The neo-Keynesian Quantity Constrained Model, Interpretations of Clower and Leijonhufvud. Micro foundations of macroeconomics, Small Menu Cost Model and Staggering of Prices, Implicit Wage contract theory, Efficiency Wage Theory, Insider-Outsider Model. Hysteresis and the NAIRU, The supply side position – Supply-side views on fiscal policy and the role of incentives.

## Practical

Make a comparative analysis of Great depression and depression in 2008-Okuns law-Finding the sacrifice ratio- Misery index-Explain Monetarist version of inflation in Indian context-Make a detailed report writ up on debt crisis of India since independence-Examine the relation of Philips curve a unemployment situation in India since reforms- Examine the wage structure in the organised and unorganised sectors in India-Analyse the trend of growth structure of the different sectors in Indian economy.

## Leson Plan

Sl. No	Topic	Hours of Lecture
1	Classical Tradition and Keynesian Revolution Important postulates of Classicals, Keynes' interpretation of classical postulates	1
2	Keynes interpretation of Great Depression – Keynes policy prescriptions	2
3	Unemployment and inflation – cost of unemployment and Okun's Law – cost of inflation and sacrifice ratio – misery index	2
4	Unemployment and inflation trade off and the Philips Curve	1
5	Monetarist School Monetarists' view on Great Depression. Debates on Policy Effectiveness: inside lag and outside lag, Monetarists' rules versus discretion, Time Inconsistency	2
6	Adaptive Expectation Hypothesis and NAIRU, Expectations Augmented Philips Curve,	1
7	The monetary approach to the Balance of Payments theory- New Classical School Structure of New classical models – Rational Expectations Hypothesis, Continuous market clearing and The Aggregate Supply Hypothesis	2
8	Output and Employment in the New Classical Model, Lucas Critique and policy ineffectiveness, Barro-Ricardo equivalence and fiscal policy - Reasons for the failure of Barro-Ricardian equivalence: liquidity constraints, myopia and uncertainty	2
9	Real Business Cycle School Inter-temporal substitution of labour, Real Business Cycle Theory – technology shocks, neutrality of money and	2

	flexibility of wages and prices. Real Business Cycle view on Great Depression	
10	New Keynesian and Supply Side Economics The neo-Keynesian Quantity Constrained Model, Interpretations of Clower and Leijonhufvud	1
11	Micro foundations of macroeconomics, Small Menu Cost Model and Staggering of Prices, Implicit Wage contract theory, Efficiency Wage Theory, Insider-Outsider Model. Hysteresis and the NAIRU, The supply side position – Supply-side views on fiscal policy and the role of incentives.	2
<b>Total</b>		<b>18</b>

### Practical Schedule

Sl.No	Topic	Practical Hours
1	Make a comparative analysis of Great depression and depression in 2008	3
2	Okuns law-Finding the sacrifice ratio	4
3	Misery index	4
4	Explain Monetarist version of inflation in Indian context	4
5	Make a detailed report writ up on debt crisis of India since independence	4
6	Examine the relation of Philips curve a unemployment situation in India since reforms	4
7	Examine the wage structure in the organised and unorganised sectors in India-	5
8	Analyse the trend of growth structure of the different sectors in Indian economy.	8
<b>Total</b>		<b>36</b>

### Reference

1. Samuelson, Paul A., and William D. Nordhaus. "Macroeconomics". Copyright by McGrawHill Companies." (1998).
2. Amit Bhaduri (1988): Macroeconomics, New Delhi: Macmillan.
3. Carlin, Wendy, and David Soskice. "Macroeconomics and the wage bargain." (1990).
4. Keynes, John Maynard. "The General Theory of Employment, Interest, and Money", New York: Harcourt, Brace & World." (1936).

5. Sheffrin, Steven M. Rational expectations. Cambridge University Press, 1996.
6. Phelps, E. (1990): "Microeconomic Foundations of Employment and Inflation Theory", New York: Norton.
7. Phelps, Edmund S. Seven schools of macroeconomic thought: the Arne Ryde memorial lectures. Vol. 1. Oxford University Press on Demand, 1990.
8. Tobin, James. Asset accumulation and economic activity: Reflections on contemporary macroeconomic theory. University of Chicago Press, 1982.
9. Akerlof, George A., and Robert J. Shiller. Animal spirits: How human psychology drives the economy, and why it matters for global capitalism. Princeton University Press, 2010.
10. Hoover, Kevin D. The new classical macroeconomics: A central inquiry. Blackwell, 1990.
11. Plosser, Charles I. "Understanding real business cycles" The Journal of Economic Perspectives 3.3 (1989): 51-77.
12. Heap, Shaun P. Hargreaves. "The New Keynesian Macroeconomics." Books (1992).
13. Chandler, Lester Vernon. The monetary-financial system. Harper Collins Publishers, 1979.
14. Mankiw, N. Gregory (2008) 'Macroeconomics', Worth Publishers', NY, 6th ed.
15. Froyen, Richard T. (2005) 'Macroeconomics: Theories and Policies', Pearson (LPE), seventh ed.
16. Snowdon, Brian, and Howard R. Vane. Modern macroeconomics: its origins, development and current state. Edward Elgar Publishing, 2005.
17. Levacic, Rosalind. Macroeconomics: an introduction to central neoclassical controversies. 1982.

## 5. Econ 505 International trade and Development (1+1)

International Trade and Economic Development Importance of trade to development-Trade as an engine of growth-Contributions of trade to development- Terms of trade

Types.- Developments in Trade Theories Offer Curves- Reciprocal demand theory- Opportunity cost analysis- Factor intensity-Factor abundance-Heckscher-Ohlin Theory- Leontief Paradox- Factor intensity reversal-Factor Price Equalization Theorem- Stolper Samuelson theorem- Metzler Paradox

Economies of scale and international trade- Imperfect competition and international trade- Product differentiation and international trade- Posner's Imitation gap- Vernon's Product Cycle Theory -Leamer's and Trefler's Theorem - Kravis theory of Availability- Linder's theory of Volume of Trade and Demand pattern



Transportation cost and international trade - Foreign trade multiplier- Economic Growth and International Trade Growth of labour and capital- Rybczynski theorem- The effect of growth on trade Immiserising growth- Dutch disease- Prebisch - Singer Thesis-Myrdal's views

International Trade Policies Import substitution versus export orientation - Trade Restrictions- Tariffs- Effects of Tariffs -Partial and general equilibrium analysis-Optimum Tariff-Effective rate of protection-Non tariff barriers -Import Quotas-Effects of an import quota - New Protectionism - Exchange control- Export subsidies- Countervailing tariff- Voluntary export restraints- Technical standards- Administrative and other regulations- Dumping and anti-dumping duties -International Cartels -Trade in Wastes- Economic Integration Economic Integration

Theories of customs union- Trade creating customs union-Trade diverting customs union- Static welfare effects of customs union-Dynamic benefits from customs union - Emerging issues in SAFTA, ASEAN and EU-Problems and prospects of WTO Agreement in present Global trading.

### Practical

Examine whether trade as an engine of growth in Indian context-Exercise on Different types of terms of trade-Exercise of Absolute advantage and Comparative advantage-Practical problems on Lerner's Index-Exercise on Foreign trade multiplier-Narrative report on export and import pattern of India since reforms- Exercise on Different types of tariffs- Examine the status of emerging issues in SAFTA,ASEAN and EU-Detailed report on trade relation of India with WTO.

### Lesson Plan

Sl No	Topic	Hours of Lecture
1	International Trade and Economic Development Importance of trade to development-Trade as an engine of growth-Contributions of trade to development	1
2	Terms of trade-Types.- Developments in Trade Theories Offer Curves	1
3	Reciprocal demand theory- Opportunity cost analysis- Factor intensity- Factor abundance	1
4	Heckscher-Ohlin Theory- Leontief Paradox- Factor intensity reversal-	1

5	Factor Price Equalization Theorem- Stolper Samuelson theorem- Metzler Paradox	1
6	Economies of scale and international trade- Imperfect competition and international trade-Product differentiation and international trade	1
7	Posner's Imitation gap- Vernon's Product Cycle Theory –Leamer's and Trefler's Theorem – Kravis theory of Availability-	1
8	Linder's theory of Volume of Trade and Demand pattern- Transportation cost and international trade – Foreign trade multiplier-	1
9	Economic Growth and International Trade Growth of labour and capital- Rybczynski theorem- The effect of growth on trade	2
10	Immiserising growth- Dutch disease- Prebisch – Singer Thesis-Myrdal's views	1
11	International Trade Policies Import substitution versus export orientation – Trade Restrictions-Tariffs- Effects of Tariffs –Partial and general equilibrium analysis-Optimum Tariff-Effective rate of protection	2
12	Non-tariff barriers –Import Quotas-Effects of an import quota – New Protectionism – Exchange control- Export subsidies- Countervailing tariff- Voluntary export restraints-	2
13	Technical standards- Administrative and other regulations. Dumping and anti-dumping duties –International Cartels –Trade in Wastes	1
14	Economic Integration Economic Integration – Theories of customs union- Trade creating customs union.	1
15	Trade diverting customs union-Static welfare effects of customs union .Dynamic benefits from customs union.	1
16	Emerging issues in SAFTA, ASEAN and EU .Problems and prospects of WTO Agreement in present Global trading.	1
<b>Total</b>		<b>18</b>

### Practical Schedule

Sl.No	Topic	Practical Hours
1	Examine whether trade as an engine of growth in Indian context	4

2	Exercise on Different types of terms of trade	4
3	Exercise of Absolute advantage and Comparative advantage	4
4	Practical problems on Lerner's Index	4
5	Exercise on Foreign trade multiplier	4
6	Narrative report on export and import pattern of India since reforms	4
7	Exercise on Different types of tariffs	2
8	Examine the status of emerging issues in SAFTA, ASEAN and EU	4
9	Detailed report on trade relation of India with WTO	6
<b>Total</b>		<b>36</b>

## References

1. Salvatore, D. "International Economics (Prentice Hall International Inc." Upper Saddle River, NJ (1998).
2. Salvatore, D (2014), International Economics; Trade and Finance, Wiley Students Edition.
3. Pomfret R (1993), International Trade, Blackwell Cambridge, USA, Chapter VI, VII.
4. Sodersten B and Reed G, (1994) International Economics, Third Edition, Mac Millan.
5. Kindleberger CP (1975) International Economics, Richard D Irwin, Home Wood, Illionis, Chapters 2, 3,4,5,7 & 10.
6. Thirlwall, Anthony Philip. Growth and development: with special reference to developing economies. Springer, 1989.
7. Paul Krugman and M. Obsteild (1991) International Economics, Harper ecentr.
8. Chacholiades, Miltiades, and Miltiades Chacholiades. International trade theory and policy. No. 04; HF1007, C4.. 1978.
9. Peter B Kenen (1989), The International Economy, Prentice – Hall of India New Delhi, Chapter VII
10. Kevin watking (1992), Fixing the Rules North – South Issues in International Trade and GATT Uruguay Round, Catholic Institute for International Relations, London.
11. Mia Mikic, International trade , Mac Millan, London 1998.
12. Dasgupta, Biplab. Structural adjustment, global trade, and the new political economy of development. Zed books, 1998.
13. Bibek Dibroy (1995) The Uruguay Round and after, sage, New Delhi.
14. Stevens, Candice. "The environmental effects of trade." The World Economy 16.4 (1993): 439-451.

15. Srinivasan, Thirukodikaval Nilakanta. "Developing countries in the World Trading System: from GATT, 1947, to the Third Ministerial Meeting of WTO, 1999." *The World Economy* 22.8 (1999): 1047-1064.
16. David Greenaway, *International trade policy*, Mac Millan, London, 1983.
17. Bhagwati, Jagdish N., and Thirukodikaval Nilakanta Srinivasan. "Foreign trade regimes and economic development: India." NBER Books (1975).
18. Panchamukhi, Vadiraj Raghawendracharya. *Trade Policies of India: A Quantitative Analysis*. Concept Publishing Company, 1978.
19. Rao, Mopidevi Sundara. *Trends and Determinants of India's Foreign Trade*. Chugh publications, 1991.

## **6. Econ 506 International trade and Development II (1+1)**

Balance of Payments Balance of payments- Components- Equilibrium and disequilibrium in BOP- Methods of correcting BOP deficit-Adjustment Mechanisms-Automatic, price and income adjustments Elasticity approach- Marshall-Lerner condition- Absorption Approach- Monetary approach

J curve effect- Currency convertibility- Current and capital account convertibility-The Indian experience-FEMA. -Exchange Rate and Theories of Exchange Rate Exchange rate-Nominal, Real, Effective, NEER, REER- Exchange rate systems- Relative merits and demerits of fixed and flexible exchange rates- Hybrid exchange rates- Purchasing power parity theory-Monetary approach- Asset market (portfolio balance) model- Exchange rate overshooting Exchange rate in India- Indian Rupee and its fluctuations in international currency market

Foreign Exchange Market Foreign exchange market-Functions-Participants- Stability of foreign exchange markets-Spot and forward market- Currency futures and options- Swap market- Foreign exchange risk Hedging- Speculation- Stabilizing and de-stabilizing- Currency arbitrage

Internal and external balance- Policy adjustments- Expenditure changing and expenditure switching policies-Assignment problem- Swan diagram- Mundell-Fleming model- International Capital Flows

Portfolio investment and direct investments- Motives for capital flows- Effects of international capital flows- Multinational corporations- Advantages and disadvantages of MNCs- Foreign investment in India since 1991- International Monetary System International monetary system- The gold standard and its breakdown-Bretton Woods system and its breakdown- Present

international monetary system- European monetary union-Euro- Optimum currency areas- Currency boards- Dollarization- Brexit.

### Practical

Balance of payment position of India since independence-Measuring BOP deficit in India- Problems on Elasticity approach on BOP deficit –Calculating nominal and real exchange rate- Examine exchange rate of India since reforms-Measuring purchasing power parity –Exercise on currency Spot, Future and currency Forward and currency swap markets-Exercise on Hedging- Exercise on arbitrage-Narration of foreign investment in India since reforms

### Lesson plan

Sl.No.	Topic	Hours of Lecture
1	Balance of Payments Balance of payments- Components- Equilibrium and disequilibrium in BOP- Methods of correcting BOP deficit- Adjustment Mechanisms-Automatic, price and income adjustments Elasticity approach	2
2	Marshall-Lerner condition- Absorption Approach-Monetary approach- J curve effect- Currency convertibility- Current and capital account convertibility-The Indian experience-FEMA.	2
3	Exchange Rate and Theories of Exchange Rate Exchange rate- Nominal, Real, Effective, NEER, REER- Exchange rate systems- Relative merits and demerits of fixed and flexible exchange rates- Hybrid exchange rates	2
4	Purchasing power parity theory- Monetary approach- Asset market (portfolio balance) model- Exchange rate overshooting - Exchange rate in India	1
5	Indian Rupee and its fluctuations in international currency market- Foreign Exchange Market Foreign exchange market-Functions- Participants- Stability of foreign exchange markets-Spot and forward market- Currency futures and options- Swap market	2
6	- Foreign exchange risk Hedging- Speculation- Stabilizing and de-stabilizing- Currency arbitrage	1

7	Internal and external balance- Policy adjustments- Expenditure changing and expenditure switching policies	1
8	Assignment problem- Swan diagram- Mundell-Fleming model- International Capital Flows Portfolio investment and direct investments- Motives for capital flows- Effects of international capital flows	2
9	Multinational corporations- Advantages and disadvantages of MNCs- Foreign investment in India since 1991	2
10	International Monetary System International monetary system-The gold standard and its breakdown	1
11	Bretton Woods system and its breakdown- Present international monetary system- European monetary union-Euro- Optimum currency areas- Currency boards- Dollarization- Brexit.	2
	<b>Total</b>	<b>18</b>

### Practical scheule

Sl.No.	Topic	Practical Hours
1	Evaluation of balance of payment position of India since independence	3
2	Measuring BOP deficit in India	4
3	Problems on Elasticity approach on BOP deficit	4
4	Calculating nominal and real exchange rate	4
5	Examine exchange rate of India since reforms	3
6	Measuring purchasing power parity	3
7	Exercise on currency Spot, Future and currency Forward and currency swap markets	6
8	Exercise on Hedging	3
9	Exercise on arbitrage	3
10	Narration of foreign investment in India since reforms	3
	<b>Total</b>	<b>36</b>

### References

1. Dominick Salvatore: International Economics- JohnWiley and Sons.
2. Keith Pilbeam: International Finance-Macmillan.

3. Bo Sodersten and Geoffrey Reed: International Economics- Macmillan, London.
4. Paul R Krugman and Maurice Obstfeld: International Economics: Theory and Practice Pearson Education, Singapore.
5. Thomas A. Pugel: International Economics- TMH.
6. Michael Melvin: International Money and Finance- Pearson Education.
7. James C Ingram and Robert M Dunn: International Economics- JohnWiley and Sons.
8. Keith Pilbeam: Finance and Financial Markets- Palgrave.
9. Dennis R Appleyard and Alfred J Field: International Economics-McGraw Hill.
10. Robert J Carbaugh (2011): Global Economics- Cengage Learning.
11. Giancarlo Gandolfo: International Finance and Open Economy Macroeconomics Springer.
12. Van den Berg: International Finance and Open Economy Macroeconomics- World Scientific.
13. Lawrence Copeland: Exchange Rates and International Finance-Pearson Education.
14. M Levi: International Finance-McGraw Hill.
15. Richard Caves, Jeffrey Frankel and Ronald Jones: World Trade and Payments- Pearson.
16. Sumati Varma: Currency Convertibility: Indian and Global Experiences-New Century
17. Theo Eicher, John Mutti and Michelle Turnovsky (2009): International Economics Routledge.

### **7. Econ 507 History of Economic Thought (2+0)**

Economic ideas before and after Adam Smith Mercantilist Writing on Value and Profits. Beginnings of the Classical Theory of Prices and Profits. Physiocrats – Quesnay's economic ideas. Adam Smith's value theory - David Ricardo: Theory of rent and first approach to the profit-labour theory of value. Malthus – economic exchange of class conflict- Marx critique of classical economics: Surplus value and Exchange.

The labour theory of value- capital accumulation and economic concentration. - Utilitarianism: Jevons's Theory of Marginal Utility and Exchange. Menger's Theory of Marginal Utility, Prices, and Income Distribution.

Walras's Theory of General Economic Equilibrium- Neoclassical Theories of the Firm and Income Distribution: The Contributions of Marshall, Clark, and Bihm-Bawerk.

Microeconomic Theory, and Welfare Economics. Pareto Optimality and criticism-Contemporary Economic ideas: Origin of Development Economics (Arthur Lewis). Paul A. Samuelson Vs Milton Friedman-New monetarism-Market with asymmetric information (Joseph E Stiglitz; Georn A Akerlof). Behavioural Economics (Richard Thaler). Capability approach of A.K Sen. Experimental approach: Abhijit Banerjee. Modern economic ideas of India: Naroji, Ranade. R.c. Dutt, Mahatma Gandhi and Ambedkar.

### Lesson Plan

Sl. No	Topic	Hours of Lecture
1	Economic ideas before and after Adam Smith Mercantilist Writing on Value and Profits. Beginnings of the Classical Theory of Prices and Profits. Physiocrats	1
2	Beginnings of the Classical Theory of Prices and Profits. Physiocrats	1
3	Quesnay's economic ideas. Adam Smith's value theory- David Ricardo	2
4	Theory of rent and first approach to the profit-labour theory of value. Malthus	2
5	Economic exchange of class conflict	1
6	Marx critique of classical economics	2
7	Surplus value and Exchange	2
8	The labour theory of value- capital accumulation and economic concentration	2
9	Utilitarianism: Jevons's Theory of Marginal Utility and Exchange	1
10	Menger's Theory of Marginal Utility, Prices, and Income Distribution	2
11	Walras's Theory of General Economic Equilibrium	2
12	Neoclassical Theories of the Firm and Income Distribution	2
13	The Contributions of Marshall, Clark, and Böhm-Bawerk. Microeconomic Theory, and Welfare Economics	1
14	Pareto Optimality and criticism-Contemporary Economic ideas: Origin of Development Economics (Arthur Lewis)	2
15	Paul A. Samuelson Vs Milton Friedman. Market with asymmetric information (Joseph E Stiglitz; Georn A Akerlof)	2



16	Behavioural economics (richard thaler)	2
17	Capability approach of A.K Sen	2
18	Experimental approach: Abhijit Banerjee	2
19	Modern economic ideas of India: Naroji, Ranade. R.c. Dutt	2
20	Modern economic ideas of India - Mahatma Gandhi and Ambedkar	2
<b>Total</b>		<b>36</b>

## Reference

- 1 J. R. Hicks (1946). Value and Capital.
2. Lionel Robbins (2000), A History of Economic Thought, Princeton University Press.
3. John Kenneth Galbraith (1998), History of Economics: The Past as the Present, Penguin Books
4. Linda Yueh (2008), The Great Economists: How Their Ideas Can Help Us Today, Viking
5. Smith. (1776). An Inquiry Into the Nature and Causes of the Wealth of Nations.
6. Niall Kishtainy (2017), A Little History of Economics (Little Histories), Yale University Press.
7. Bowles, S.: Microeconomics: Behavior, Institutions, Evolution. New Delhi, Oxford University Press (2004).
8. J. M. Keynes (1936). The general theory of employment, interest and money.
9. J. E. Stiglitz. Whither Socialism? Cambridge, Massachusetts, MIT Press.
10. Haunt, E.K and Mark Lutzenheiser (2011) History of Economics a Critical Perspective, M.E.Sharpe Armonk, New York.
11. DasGupta, Ajit (1993), A History of Indian Economic Thought, The Routledge.
12. Ganguli.B.N (1997) Indian Economic Thought: A Nineteenth-Century Perspective. TMH. New Delhi.
13. Robert L.Heilbroner (1999), The Worldly Philosophers: The Lives, Times and Ideas of the Great Economic Thinkers, Touchstone.
14. Steven Pressman (2006), Fifty major economists, Routledge, Milton Park, Abingdon, Oxon OX14
15. Sweezy, Paul M.(1942), The Theory of Capitalist Development, Denis Dobson Ltd., London,

16. Angrist, J and J. S. Pischke (2010): "The credibility revolution in empirical economics: How better research design is taking the con out of econometrics", *Journal of Economic Perspectives*, 24(2): 3-30.

17. Otto Eckstein (1967), *Evolution of modern economics*, Prentice hall Inc, Harvard University

**8. Econ 508 Economic growth and Development (2+0)**

Concepts and Measurements of Economic Growth and Development-Concepts of growth and development-Indicators of Economic Development: National-Income, Per capita Income, PQLI, Human Development Index, Gender Development Index,-Human Poverty Index and Deprivation Index

Measures of Inequality: Kuznets Inverted U-hypothesis, Lorenz Curve and Gini-coefficient, Atkinson, Theil, Palma ratio

Theories of Economic Growth-Harrod-Domar Growth Model- Contributions of Kaldor-Mirrlees and Joan Robinson,-Hirofumi Uzawa model, Solow’s Growth Model and the Convergence Hypothesis,-Endogenous Growth Theory and the role of Human Capital; Indian Plan Models of-Mahalanobis and Wage-goods model.

Partial Theories of Economic Growth and Development-Basic Features of Underdeveloped Countries, Population Growth and the Theory of LowLevel Equilibrium Trap, Critical Minimum Effort Thesis, Theory of Big-Push; Balanced-Versus Unbalanced Growth Theories Concepts of linkages.- Stage TheoriesMarxian Stage theory, Rostow’s Stage Theory. Theory of Growth and Structural Change-Concept of Dualism: Technological, Social, Geographical and Financial. Myrdal and Circular Causation, Backwash and Spread Effect.

Institutions and Economic Growth- Financing Economic Development-Domestic Resource Mobilisation: Prior-Savings Approach, The Keynesian and Quantity-Theory Approaches to the Financing of Economic Development. Foreign Resource: Dual-Gap Analysis.

**Lesson Plan**

Sl. No	Topic	Hours of Lecture
1	Concepts and Measurements of Economic Growth and Development- Concepts of growth and development	1

2	Indicators of Economic Development: National-Income, Per capita Income, PQLI, Human Development Index, Gender Development Index,- Human Poverty Index and Deprivation Index.	1
3	Measures of Inequality: Kuznets Inverted U-hypothesis	2
4	Lorenz Curve and Gini-coefficient	1
5	Atkinson, Theil, Palma ratio.-Theories of Economic Growth-Harrod-Doma Growth Model-	2
6	Contributions of Kaldor-Mirrlees and Joan Robinson,-Hirofumi Uzawa model, Solow's Growth Model and the Convergence Hypothesis	2
7	Endogenous Growth Theory and the role of Human Capital; Indian Plan Models of-Mahalanobis and Wage-goods model	2
8	Partial Theories of Economic Growth and Development-Basic Features of Underdeveloped Countries, Population Growth a	2
9	Theory of LowLevel Equilibrium Trap	2
10	Critical Minimum Effort Thesis	2
11	Theory of Big-Push; Balanced-Versus Unbalanced Growth Theories- Concepts of linkages	2
12	Stage TheoriesMarxian Stage theory, Rostow's Stage Theory. Theory of Growth and Structural Change	2
13	Concept of Dualism: Technological, Social, Geographical and Financial. Myrdal and Circular	2
14	Causation, Backwash and Spread Effect	2
15	Institutions and Economic Growth- Financing Economic Development	2
16	Domestic Resource Mobilisation: Prior-Savings Approach	2
17	The Keynesian and Quantity	2
18	Theory Approaches to the Financing of Economic Development	2
19	Foreign Resource: Dual-Gap Analysis	2
<b>Total</b>		<b>36</b>

## References

1. Adelman, Irma (1961): 'Theories of Economic Growth and Development', Stanford University Press

2. Ahluwalia and I.M.D Little: India's Economic Reforms and Development: Essays for Manmohan Singh
3. Hollis, Chenery, and T. N. Srinivasan: "Handbook of Development Economics, Vol. 1." (1988).
4. Fortado (1964): Development and Underdevelopment', University of California Press, Berkley
5. Ghatak, Subrata: Introduction to Development Economics. Routledge (4 th edn.)
6. Gill, Richard T: Economic Development: Past and Present. No. HD82 G52. 1963.
7. Hagen, Everett (1975): The Economics of Development Richard D. Irwin Illinois
8. Higgins, Benjamin (1976): Principles of Economic Development, Universal Book Stall, New Delhi.
9. Jones, Hywel G: An Introduction to Modern Theories of Economic Growth. London: Nelson, 1975.
10. Kindleberger, C.P (1958): Economic Development, Tata McGraw-Hill, NY
11. Kuznets S (1972): Modern Economic Growth, Oxford and IBH, New Delhi.
12. Little, Ian Malcolm David: Economic Development: Theory, Policy, and International Relations. (1982).
13. Meier, Gerald M., and James E. Rauch: Leading Issues in Economic Development. 5th ed. New York: Oxford University Press, 1989.
14. Ray, Debraj (2003): 'Development Economics', Oxford India Paperbacks, OUP
15. Sen, A. K: Introduction in Growth Economics: Selected Readings." (1970).
16. Skarstein, Rune. Development Theory: A Guide to Some Unfashionable Perspectives. Oxford University Press, USA, 1997.
17. Stiglitz, Joseph E., and Hirofumi Uzawa, eds: Readings in the Modern Theory of Economic Growth. Mit Press, 1969.
18. Thirlwall, A. P: Growth and Development: With Special Reference to Developing Economies: Palgrave Macmillan." (2003).

## **9. Econ 509 Research Methodology for social sciences (1+1)**

Fundamentals of Research Methodology Meaning of research- The relation between theory and research- Types of research- Scientific and social research- Pure and applied research- Special features of social research- Different approaches in social research.

Formulation of Research Problem Formulation of null and alternative hypothesis- Research design and methods- Exploratory, diagnostic and experimental studies- Deductive and inductive method- Static and dynamic method- Historical and dialectical method- Case study method-Interdisciplinary research

Data Collection Sources of data- Primary and secondary- Time series and cross section data- Sample survey Methods - Interview methods-Questionnaire methods- Construction of questionnaire-Sampling Methods Random, stratified, multistage, systematic, cluster, quota and judgment samples- Data analysis techniques- Drawing inferences from analysis- Scaling-Problems and Techniques- Report writing procedures.

Computer Applications Estimation of mean, median and mode-Standard deviation and coefficient of variation- Presentation of graphs- Line, sub divided, multiple, pie graphs- Estimation of growth rates- Estimation of trend equations- Estimation of regression equations- Introduction to EXCEL, SPSS.

**Practical**

Identification research-Examining the different data base on agriculture, management and economics on national and international level- Identifying major search engines like OPAC,web OPAC, Union Catalogues etc.-familiarizing computerised library operations - Problem based on relevant literature-Development of research proposal-Preparation of schedules and questionnaire-Data collection and sample survey-coding and tabulation of data-Familiarising small and large sample test –Measure of central tendency and Dispersion problems-Diagrammatic representation of data- analysis and Interpretation of data- Preparation of mini research reports.

**Lesson plan**

Sl. No	Topic	Hours of Lecture
1	Meaning and definition of Research- Classification of research	1
2	Importance, applications, limitations of social science research	1
3	Information -communication technology in research - Basic elements of the scientific method	1

4	Theory and research, the meaning of methodology. Research problem and design	2
5	Steps in research process and selection of the topic	1
6	Formulation of the research designs for exploratory, descriptive, diagnostic and experimental research	2
7	Participatory Research Methods- PRA tools& techniques	2
8	Data Collection and analysis, Sampling design, types.	1
9	Methods of collecting primary Data questionnaire and schedules,	1
10	Sources of secondary data on Indian economy	1
11	Case study method, processing of data.	1
12	Hypothesis: sources, testing of hypothesis. Interpretation, drawing conclusions and reporting it	2
13	Estimation of growth rates- Estimation of trend equations- Estimation of regression equations- Introduction to EXCEL, SPSS	2
<b>Total</b>		<b>18</b>

### Practical Schedule

Sl. No	Topic	Hours of Lecture
1	Study of already completed projects	4
2	Identification research problem based on relevant literature	2
3	Development of research proposal	4
4	Preparation of schedules and questionnaire	6
5	Data collection and sample survey	4
6	Coding and tabulation of data	4
7	Analysis and interpretation of data	4
8	Step for writing a Research Project	4
9	Preparation of mini research reports	6
<b>Total</b>		<b>36</b>

### Reference

1. William J. Goode and Paul K .Hatt, 1981. Methods in Social Research. McGrawHill.

2. Pauline V. Young, 1950. Scientific Social Surveys and Research. Prentice Hall India Pvt Ltd.
3. C. R. Kothari, 2013. Research Methodology: Methods and Techniques, New Age International.
4. W. Lawrence Neuman, 2006. Social Research Methods. Quantitative and Qualitative Approaches. Pearson.
5. Wilkinson and Bhandarkar, 2002 . Methodology and Techniques of Social Research. Himalaya Publishing House.
6. Modern Language, 2009. The MLA Handbook for Writers of Association of America. Research Papers.

## **10. Econ 510 Indian Economic Development and Policies (2+0)**

Growth and Sector-wise contribution to GDP and Employment - Distribution of National Income among factors of production – Regional disparity in growth and development. HDI related indicators in India, Millennium Development Goals-Sustainable Development Economics

Objectives of planning – achievements of planning – performance of different sectors under Plans-Foreign trade under Plans – infrastructure under plans – inclusiveness in Five Year Plans – poverty and unemployment. Transition from planning commission to NITI Ayog

Background of reforms – macroeconomic stabilization and structural adjustment programme – major policy changes – industry since reforms – agriculture since reforms – social sector and reforms – trade sector and reforms – financial sector & reforms – foreign investment & technology since reforms – fiscal policy & reforms – poverty, unemployment & inequality since reforms

Structural change of Kerala Economy since the formation of the state – Kerala model of Development – Agricultural performance — Industrial performance – Development of Infrastructure- Power, Road, Water and Air Transport, Tourism, Banking, Health and Education- Migration and Foreign remittance – Economic Impact of Gulf emigration on Kerala Economy. Interstate migration, State Finance – Fiscal deficit and public debt. Decentralization – Achievements and second-generation issues of decentralization – urbanisation – trend, pattern, causes and consequences.

## Lesson Plan

Sl. No	Topic	Hours of Lecture
1	Growth, Structural Changes and Challenges of the Indian Economy Economic growth in IndiaCSO and national income related aggregates	1
2	Contribution of different sectors to GVA, GDP and Employment	1
3	Trends in savings and investment since reforms- Migration, diaspora and remittance	2
4	Regional disparity in growth and development -Analysis of poverty, unemployment and inequality in India-	1
5	Review of Economic Development Assessment of Indian agriculture sector and recent initiatives by the government for its growth-Inter regional dimensions of industrial growth in India	2
6	Make in India initiative Service sector: growth rate, share in exports and imports, software exports-	2
7	- Infrastructure at cross roads -Prices: Headline inflation-Inflation based on WPI and CPI combined, food inflation, core inflation	2
8	Monetary management in India prior to1990 and position after 1990s	2
9	New initiatives of the government towards black moneyInclusive policies of the government-A global deal on climate change:	2
10	possible role for IndiaEconomic Planning in India Planning and economic development	2
11	Objectives of planningTechniques of planning Achievements of planning- Bottom up and Step down approaches in planning	2
12	Evaluation of Five Year Plans-NITI Aayog and its Vision Documents- Welfare programmes announced in the last two Union Budgets	2
13	Economic Reforms Since 1991 Background of economic reforms- Washington Consensus- Industrial policy reforms- Trade policy reforms- Fiscal policy reforms	2
14	Financial sector reforms- Foreign investment policy reforms- Second generation economic reforms-An appraisal of India's economic reforms	2



	Post reform Infrastructure Investment Models-PPP- Cooperative federalism with special reference to GST	
15	Kerala Economy Economic liberalization and economic growth in Kerala- Kerala model of development Agricultural performance- Industrial backwardness- Health and education -	2
16	Migration of casual workers to Kerala- Decentralization-Achievements of decentralization	2
17	Poverty and unemployment in Kerala -	2
18	State finances of Kerala	2
19	Causes of acute fiscal crisis of Kerala	2
<b>Total</b>		<b>36</b>

## References

1. Vijay Joshi and IMD Little: India: Macroeconomics and Political Economy: 1964- 1991- Oxford University Press, New Delhi 1994.
2. Uma Kapila (ed): Indian Economy Since Independence- Academic Foundation, New Delhi 2004.
3. Vijay Joshi and I. M.D Little: India's Economic Reforms: 1991- 2001- Oxford University Press, New Delhi, 1996.
4. VM Dandekar and Nilakant Rath: Poverty in India- Indian School of Political Economy, Pune, 1971.
5. Jagdish Bhagwati: India in Transition- Oxford University Press, Delhi, 1994.
6. Dr. S Murthy: Structural Reforms of Indian Economy- Atlantic Publishers, 1995.
7. H W Singer, Neelambar Hatti and Rameshwar Tandon (eds): Trade Liberalisation in the 1990's- Indus Publishing Company, New Delhi, 1990.
8. Jagdish Bhagwati and TN Srinivasn: Foreign Trade Regimes and Economic Development: India- NBER, New York, 1986.
9. Isher Judge Ahluwalia and IMD Little (ed): India's Economic Reforms and Development: Essays for Manmohan Singh- Oxford University Press, Delhi, 1998.
10. KR Gupta (Ed): Liberalization and Globalization of Indian Economy- Atlantic Publishers, New Delhi 1995.
11. Deepak Lal: India in the World Economy- Oxford University Press, 1999.

12. Datt. R. (2001): Second Generation Economic Reforms in India- Deep and Deep Publications, New Delhi.
13. Mahendra K Premi (2009): India's Changing Population Profile- National Book Trust, New Delhi.
14. B A Prakash (Ed): Indian Economy Since 1991-Pearson Education.
15. Shanker Acharya and Rakesh Mohan (Eds) (2011): India's Economy: Performance and Challenges- Oxford University Press, New Delhi.
16. Jayaraj D and Subramanian S (2010): Poverty, Inequality and Population- Oxford University Press, New Delhi.
17. Mahendradev S (2010): Inclusive Growth in India- Oxford University Press, New Delhi.
18. CT Kurien: Poverty, Planning and Social Transformation in India- Allied Publishers, Delhi, 1978.
19. BA Prakash (Ed): Kerala's Economic Development: Issues and Problems- Sage publishers, New Delhi, 1999.
20. ET Mathew (1997): Employment and Unemployment in Kerala- Sage publishers.
21. George K K (1999): Limits to Kerala Model of Development- CDS, Trivandrum.
22. Sunil Mani, Anjii Kochar, Arun M Kumar: Crouching Tiger Sacred Cows- D C Books, Kottayam.
23. K Rajan: Kerala Economy: Trends during the Post-reform Period-Serial Publishers, New Delhi.
24. CDS (1975): Poverty Unemployment and Development Policy: A Case Study of Selected Issues with Reference to Kerala- CDS, Trivandrum.
25. K.K. George and K.K. Krishnakumar (2012): Trends in Kerala State Finances- 1991-92 to 2012-13: A Study in the Backdrop of Economic Reforms in India- Working Paper N0.28- Centre for Socio-economic & Environmental Studies-Kochi (available online).
26. K R Guptha, Indian Economy in 3 volumes: Atlantic Publishers.
27. BA Prakash and Jerry Alwin, Kerala's Economic Development: Emerging Issues and Challenges, Sage publishers, 2018.
28. RBI Annual Reports.
29. Ministry of Finance: Economic Survey-Variou Issues.

## 11. Econ 511 Gender and Development (1+1)

Introduction to Gender Studies concepts of gender and sex- Femininity and masculinity, importance of women studies, Patrilineal and matrilineal systems and its relevance to present Indian society

Demography of female population in India: Age structure, mortality rates, Inter-state variations in sex ratio, Causes of declining sex ratio, Measurement of fertility and its control. UNDP's gender related measures: Tools of Women Empowerment Women and education, GER ratio in India, Addressing gender inequalities in education, Gender equity in health; Access to nutrition; Women's participation in decision making: Role of civil society, Role of NGO's in empowering women. Gender and Community Economic Development (CED): Self-Employed Women's Association (SEWA) - Shramshakti-Kudumbashree in Kerala.

Factors affecting female entry in labour markets: supply and demand for female labour in developed and developing countries, in India and Kerala, Female work participation in India and Kerala, in agriculture, non-agriculture rural activities, informal sector, cottage and small industries, organized industry and service sector- Impact of technology and modernization on women's work participation, Effects of globalization and liberalization on women.

Gender issues in Development- Gender disparity ,Global and Indian scenario -Gender roles, Gender Division of labour, occupational segregation and wage differences, Gender Stereotyping in workplace, Gender inequality in labour, pattern of employment of female labour in agriculture sector-impact of change in female labour employment.

Review of legislation for women's entitlements in India -Importance of 73rd Amendment of constitution in gender empowerment- Social Protection for Women Protection of property rights- schemes for safety net for women- Effectiveness of collective bargaining-Public and private programmes to improve women's health-National Commission for Women(NCW)- The National Credit Fund for Women-Mahila Samridhi Yojana (MSY)- National policy for empowering women- International measures to protect women's' rights U.N Decade for women -UN convention on CEDAW and DEVAW.

### **Practical**

Demographic structure of India through census reports-Age structure of India- Method of calculation of mortality rate –Interstate variation in sex ratio-Measurement of fertility rate-

Measurement of trend of female work participation ratio in different sectors-Wage structure of women in India in different sectors-exercise on gender inequality indices-Measures of women empowerment- Preparation of case studies based on field survey of Women in agriculture, on women participation in social, economic, political activities- Role of women in decision making in family and democratic institutions like Co-operatives local self govt. etc-Exercises on estimation of gender empowerment ratio, time series analysis of sex ratio, female literacy ratio,etc across different-States of India.

### Lesson Plan

Sl. No.	Topic	Hours Lecture
1	Introduction to Gender Studies concepts of gender and sex- Femininity and masculinity, importance of women studies.	1
2	Patrilineal and matrilineal systems and its relevance to present Indian society. Demography of female population in India.	1
3	Age structure, mortality rates, Inter-state variations in sex ratio, Causes of declining sex ratio, Measurement of fertility and its control.	1
4	UNDP's gender related measures:. UNDP's gender related measures: Tools of Women Empowerment Women and education, GER ratio in India.	1
5	Addressing gender inequalities in education, Gender equity in health; Access to nutrition.	1
6	Women's participation in decision making. Tools of Women Empowerment Women and education, GER ratio in India.	1
7	R, Role of civil society, Self-Employed Women's Association (SEWA) - Shramshakti-Kudumbashree in Kerala.	1
8	Role of civil society, Role of NGO's in empowering women. Gender and Community Economic Development (CED).	
9	Factors affecting female entry in labour markets: supply and demand for female labour in developed and developing countries, in India and Kerala.	1

10	Female work participation in India and Kerala, in agriculture, non-agriculture rural activities, informal sector, cottage and small industries, organized industry and service sector.	1
11	Impact of technology and modernization on women's work participation, Effects of globalization and liberalization on women.	1
13	Gender Division of labour, occupational segregation and wage differences, Gender Stereotyping in workplace, Gender inequality in labour.	1
14	Pattern of employment of female labour in agriculture sector-impact of change in female labour employment. Review of legislation for women's entitlements in India.	1
15	-Importance of 73rd Amendment of constitution in gender empowerment. Social Protection for Women Protection of property rights.	1
16	Schemes for safety net for women- Effectiveness of collective bargaining. Public and private programmes to improve women's health-National Commission for Women (NCW).	1
17	Public and private programmes to improve women's health-National Commission for Women (NCW) -- The National Credit Fund for Women.	1
18	Mahila Samridhi Yojana (MSY) - National policy for empowering women- International measures to protect women's' rights U.N Decade for women -UN convention on CEDAW and DEVA.	1
<b>Total</b>		<b>18</b>

### Practical Schedule

Sl. No.	Topic	Practical Hrs
1	Demographic structure of India through census reports-Age structure of India-	4
2	Method of calculation of mortality rate –Interstate variation is sex ratio.	4
3	Measurement of fertility rate-Measurement of trend of female work participation ratio in different sectors	4

4	Wage structure of women in India in different sectors-	2
5	Exercise on gender inequality indices-Measures of women empowerment.	6
6	Preparation of case studies based on field survey of Women in agriculture, on women participation in social, economic, political activities.	4
7	Role of women in decision making in family and democratic institutions like Co-operatives local self govt.	4
8	Exercises on estimation of gender empowerment ratio,	2
9	Time series analysis of sex ratio, female literacy ratio, etc across different-States of India.	6
<b>Total</b>		<b>36</b>

## References

1. Sen, Sujatha (2012): Gender Studies- Dorling Kindersley (India) Pvt.Ltd, New Delhi.
2. Sen, Suvarna (2006): Gender and Development- ICFAI University Press, Hyderabad.
3. Dutta, Nandita and, Sumitra Jha (2014): Women and Rural Development- Pacific Books International Delhi.
4. Dutta, Nandita and, Sumitra Jha (2014): Women and Agricultural Development- Pacific Book, New Delhi.
5. Dutta, Nandita and Sumitra Jha (2014): Women Social Work and Social Welfare- Pacific Books International, New Delhi.
6. Jitendra Ahirrao (2013): Entrepreneurship and Rural Women in India- New Century Publications, New Delhi.
7. A.Venkateswarlu, et al. (2013): Dimensions of Female Sex Ratio::Interstate Variations in India- Serials Publications, New Delhi.
8. Desai, N and M.K Raj (1974): Women and Society in India- SNTD University, Mumbai.
9. Krishna Raj .M, Sudarshan.R.M, and Shariff.A (1999): Gender, Population and Development- Oxford University Press, New Delhi.
10. Seth .M (2000): Women and Development: The Indian Experience- Sage Publications, New Delhi.

11. Srinivasa.K, and A.Shroff (1998): India Towards Population and Development Goals OUP, New Delhi.
12. Wazir, R, (2000): The Gender gap in Basic Education: NGO's as Change Agents- Sage Publications, Delhi.
13. Sen, Amartya. (1990): More than 100 Million Women are Missing- New York Review of Books, vol.37, No.20, 1990.
14. UNRISD, (2004): Gender Equality: Striving for Justice in an Unequal World- UNRISD, France, 2004.
15. ILO (2002): Women and Men in the Informal Economy: A Statistical Picture- ILO.
16. Govt. of India (1974): Towards Equality-Report of the Committee on the Status of Women in India- Dept of Social Welfare, Ministry of Education and Social Welfare, New Delhi.
17. Govt.of India (2009): Gender Equality and Women Empowerment in India- National Family Health Survey 2005-06 (NFHS-3), IIPS, Mumbai.
18. John Mary .E (1996): Gender and Development in India- EPW, 31(47), PP 3071-77).
19. Pal, Manoranjan et.al (Ed) (2011): Health, Nutritional Status and Role of Women in India- Oxford University Press, New Delhi.
20. E Boserup (1970): Women's Role in Economic Development- George Allen and Unwin, London.

## **12. Econ 512 Poverty, Inequality and rural development (2+1)**

Poverty- Concepts, Definitions, dimensions and analytical context- Measures of Poverty-Head count ratio,Poverty gap,Human poverty index-Multidimensional poverty index

Poverty in India- Definition and measurement of Poverty in India: A Chronological Examination; The Great Indian Poverty Debate: A Snapshot; Identification of the Poor in India's Five year plans- Poverty Profiles- Rationale for poverty profile; Presentation of dimensions of poverty; Use of additive poverty measures and poverty comparisons; Poverty comparisons over time: sampling frame and method- adjustment for price differences; Poverty mapping and relative risk.

Inequality Measures- Difference between inequality and poverty; Measures of Inequality : Lorenz Curve; Gini Coefficient; generalized entropy measures including Theil's T and Theil's L., Atkinson's inequality measure;- Axioms of inequality and satisfying conditions of the measures of inequality; Decomposition of inequality measures.

Growth, inequality and Poverty- Debates on Growth versus inequality and poverty growth linkages.- Multidimensional Poverty- Properties of multidimensional poverty; Multidimensional poverty measures: issues of identification and aggregation; Multidimensional Poverty Measures.

Human Development- Human Development Concepts and Approaches ; Introduction to HD Measurement Issues- Growth, inequality and Human Development- Inequality Adjustment and inclusiveness of Human Development- The need for inequality adjustment in HDI: HDI in India Patterns and Trends; Disaggregating human development: An assessment of inclusiveness; Inter-dimensional response across the three dimensions: the optimal evaluation.

### **Practical**

Different measures of measuring poverty-Poverty trend in different states of India-Narrative report on poverty trend of India through five year plans-Detailed study of different dimensions of poverty on India-Make an evaluation of different strategies and programmes taken by the government of India and its impact on poverty- Evaluation of the extend of poverty in the context of sustainable development goals-Make a comparison of poverty scenario of India and its neighbours-Poverty mapping-Inequality measures-Dimensions of inequality in India

### **Lesson Plan**

<b>Sl. No</b>	<b>Topic</b>	<b>Hours of Lecture</b>
1	Poverty- Concepts, Definitions, dimensions and analytical context	1
2	Measures of Poverty-Head count ratio, Poverty gap, Human poverty index	2
3	Multidimensional poverty index-Recent developments poverty measurement	1
4	Poverty in India- Definition and measurement of Poverty in India	1
5	A Chronological Examination; The Great Indian Poverty Debate	1
6	A Snapshot; Identification of the Poor in India's Five-year plans	2
7	Poverty Profiles- Rationale for poverty profile; Presentation of dimensions of poverty	2
8	Use of additive poverty measures and poverty comparisons; Poverty comparisons over time	1



9	sampling frame and method- adjustment for price differences; Poverty mapping and relative risk	1
10	Inequality Measures- Difference between inequality and poverty; Measures of Inequality	1
11	Lorenz Curve and Gini Coefficient	2
12	generalized entropy measures including Theil's T and Theil's L., Atkinson's inequality measure	2
13	Axioms of inequality and satisfying conditions of the measures of inequality	1
14	Decomposition of inequality measures. - Growth, inequality and Poverty	2
15	Debates on Growth versus inequality and poverty growth linkages	2
16	Multidimensional Poverty- Properties of multidimensional poverty	2
17	Multidimensional poverty measures: issues of identification and aggregation; Multidimensional Poverty Measures.	2
18	Human Development- Human Development Concepts and Approaches; Introduction to HD Measurement Issues	2
19	Growth, inequality and Human Development Inequality Adjustment and inclusiveness of Human Development	2
20	The need for inequality adjustment in HDI: HDI in India Patterns and Trends	2
21	Disaggregating human development: An assessment of inclusiveness	2
22	Inter-dimensional response across the three dimensions: the optimal evaluation	2
<b>Total</b>		<b>36</b>

### Practical Schedule

Sl. No	Topic	Hours of Lecture
1	Different measures of measuring poverty-Poverty trend in different states of India	6
2	Narrative report on poverty trend of India through five-year plans	6
3	Detailed study of different dimensions of poverty on India	4

4	Make an evaluation of different strategies and programmes taken by the government of India and its impact on poverty	4
5	Evaluation of the extend of poverty in the context of sustainable development goals	4
6	Make a comparison of poverty scenario of India and its neighbours- Poverty mapping	6
7	Inequality measures-Dimensions of inequality in India	6
<b>Total</b>		<b>36</b>

### Reference

1. Ravallion, Martin. 1992. "Poverty Comparisons: A Guide to Concepts and Methods." Living Standards Measurement Surveys Working Paper No. 88, World Bank, Washington, DC.
2. Sen, Amartya. 1987. Commodities and Capabilities. Amsterdam: North-Holland.
3. World Bank. 2000. World Development Report 2000/2001: Attacking Poverty. Washington, DC: World Bank.
4. Atkinson, Anthony. 1987. "On the Measurement of Poverty." *Econometrica* 55: 749–64.
- Clark, Stephen, Richard Hemming, and David Ulph. 1981. "On Indices for the Measurement of Poverty." *Economic Journal* 91 (361): 515–26.
5. Sen, Amartya K. 1976. "Poverty: An Ordinal Approach to Measurement." *Econometrica* 44 (2): 219–31.
11. Xu, Kuan, and Lars Osberg. 2002. "On Sen's Approach to Poverty Measures and Recent Developments." Working Paper, Department of Economics, Dalhousie University, Halifax, Nova Scotia.
6. Zheng, B. 1993. "An Axiomatic Characterization of the Watts Poverty Index." *Economics Letters* 42 (1): 81–6.
- Ahluwalia, M. S., 'Rural Poverty and Agricultural Performance in India', *Journal of Development Studies*, April 1978.
7. Dandekar, V.M. and N. Rath, *Poverty in India*, 1971, (Pune: Indian School of Political Economy).
8. Datta, K.L. and Savita Sharma, *Facets of Indian Poverty*, New Delhi: Concept Publishing, 2002.
9. Deaton, Angus and Valerie Kozel, *The Great Indian Poverty Debate*, Delhi: MacMillan, 2005.

10. Deaton, Angus and Jean Dreze, 'India's Food Puzzle: Growth, Poverty and Malnutrition', paper presented at the International Conference on Microeconomics of Growth in India, organized by ICRIER at New Delhi on December, 2006.
11. Government of India, 'Task Force on Projections of Minimum Needs and Effective Consumption Demand', Perspective Planning Division, Planning Commission, 1979.
12. Government of India, 'Study Group on Estimation of Poverty Line', Perspective Planning Division, Planning Commission, 1984.
13. Mehta, J. and S. Venkatraman, 'Poverty Statistics: Bermicide's Feast', Economic and Political Weekly, July 1, 2000.
14. Palmer-Jones, R. and K. Sen, 'On India's Poverty Puzzles and the Statistics of Poverty', Economic and Political Weekly, January 20, 2001.
15. Sen, Pronab, 'Of Calories and Things: Reflections on Nutritional Norms, Poverty Lines and Consumption Behaviour in India', Economic and Political Weekly, October 22, 2005. 31.
- Saxena, N. C., 'Poverty Estimates for 1999-2000', Planning Commission, New Delhi, 2001.
16. Sen, Amartya, 'Development as Capability Expansion', Journal of Development Planning, Vol.19, pp.41-58, 1989.
17. Subramanian, S., 'Unraveling a Conceptual Muddle: India's Poverty Statistics in the Light of Basic Demand Theory', EPW, January 1, 2005.
18. World Bank, World Development Report, Washington DC: World Bank, 2001.
- Ravallion, Martin, and Monika Huppi. 1991. "Measuring Changes in Poverty: A Methodological Case Study of Indonesia during an Adjustment Period." World Bank Economic Review 5 (1): 57-82.
19. Atkinson, A. B. 1970. "On the Measurement of Inequality." Journal of Economic Theory 2
20. Dollar, David and Aart Kraay (2000). "Growth is good for the poor", World Bank, Washington DC
21. Fields, Gary (1989). "Changes in poverty and inequality in developing countries", World Bank Research Observer, 4:167-186.
22. Datt, Gaurav (1999): "Has Poverty in India Declined since the Economic Reforms?," Economic and Political Weekly 34 (December 11-17).
23. Datt, Gaurav (1999): "Has Poverty in India Declined since the Economic Reforms?," Economic and Political Weekly 34 (December 11-17).
24. Birdsall, Nancy, D. Ross and R. Sabot (1995). "Inequality and Growth Reconsidered: Lessons from East Asia", World Bank Economic Review 9(3): 477-508.

25. Alkire, S. and J. Foster. (2008): "Counting and Multidimensional Poverty Measurement", Working Paper No 7, Oxford Poverty and Human Development Initiative

### **13. Econ 513 Environment and Development (1+1)**

Basic Concepts of Environmental Economics Concept of Environmental Economics, its origin. Environmental Economics and Ecological Economics - Environmental Economics and Natural resource Economics

Basic Concepts: Biodiversity – genetic, species and ecosystem, Habitat. Tragedy of commons, renewable and non-renewable resources- Maximum sustainable Yield

Green National Accounting-Externalities, Market Failure and Environmental Valuation Public Goods and Public Bads – concept of externalities - Property Rights and Coase Theorem.

Direct and Indirect methods of environmental valuation – Cost Benefit Analysis, Net present value. Contingent Valuation Method, Travel Cost Method, Hedonic Price Method, Averting Expenditure Method- Environmental Impact Assessment-Environmental Policy Instruments of environmental policy – CAC

Price-based and quantity-based instruments permit system –Criteria for Evaluating Environmental Policies, environmental regulations and local economic activity. Forest management and initiatives

Development, Trade and Environment Development, Poverty and the Environment - Population and Environment, The Quest for Sustainable Development. Indicators and Measurements of Sustainable Development. Environmental Justice, Does Trade Harm the Environment? - Environment and Development Global Pollutants and International Environmental Agreements - Green Houses Gases and Global Warming - Climate Change and Global Agreements – Kyoto Protocol, Montreal Protocol. Environmental Kuznets' Curve

#### **Practical**

Classification renewable and non-renewable resources in India- Tragedy of commons in Indian context-Exercise on National Green Accounting- Exercise on Cost Benefit analysis- Calculation of Net Present Value-Contingent Valuation method-Travel cost method-Hedonic price method-Averting expenditure method-Measurement of sustainable development-Kyoto and Montreal protocol and India- Sustainable Development Goals Field Visit: One-day field visit to be done by the students with the faculty to a place, from where environmental related issues could be highlighted, and the students are requested to prepare a note including some research questions after the visit.

## Lesson Plan

Sl. No.	Topic	Hours Lecture
1.	Basic Concepts of Environmental Economics Concept of Environmental Economics, its origin.	1
2.	Environmental Economics and Ecological Economics - Environmental Economics and Natural resource Economics	1
3.	Basic Concepts: Biodiversity – genetic, species and ecosystem, Habitat.	1
4.	Tragedy of commons, renewable and non-renewable resources- Maximum sustainable Yield	1
5.	Green National Accounting-Externalities, Market Failure and Environmental Valuation Public Goods and Public goods– concept of externalities -	2
6.	Property Rights and Coase Theorem.	1
7.	Direct and Indirect methods of environmental valuation – Cost Benefit Analysis, Net present value.	1
8.	Contingent Valuation Method, Travel Cost Method, Hedonic Price Method,	1
9.	Averting Expenditure Method- Environmental Impact Assessment- Environmental Policy Instruments of environmental policy – CAC	1
10.	Price-based and quantity-based instruments permit system –Criteria for Evaluating Environmental Polices,	1
11.	Environmental regulations and local economic activity. Forest management and initiatives	1
12.	Development, Trade and Environment Development,	1
13.	Poverty and the Environment - Population and Environment.	
14.	The Quest for Sustainable Development. Indicators and Measurements of Sustainable Development.	1
15.	Environmental Justice, Does Trade Harm the Environment? - Environment and Development Global Pollutants	1
16.	International Environmental Agreements - Green Houses Gases and Global Warming -	1
17.	Climate Change and Global Agreements – Kyoto Protocol,	1

18	Montreal Protocol. Environmental Kuznets' Curve	1
<b>Total</b>		<b>18</b>

### Practical Schedule

Sl. No	Topic	Hours of Lecture
1	Demographic structure of India through census reports-Age structure of India-	4
2	Method of calculation of mortality rate –Interstate variation in sex ratio.	4
3	Measurement of fertility rate-Measurement of trend of female work participation ratio in different sectors	4
4	Wage structure of women in India in different sectors- -	2
5	Exercise on gender inequality indices-Measures of women empowerment.	6
6	Preparation of case studies based on field survey of Women in agriculture, on women participation in social, economic, political activities.	4
7	Role of women in decision making in family and democratic institutions like Co-operatives local self govt.	4
8	Exercises on estimation of gender empowerment ratio,	2
9	Time series analysis of sex ratio, female literacy ratio, etc across different-States of India.	6
<b>Total</b>		<b>36</b>

### Reference

1. Maureen L. Cropper; Wallace E. Oates (1992) Environmental Economics: A Survey, Journal of Economic Literature, Vol. 30, No. 2. (Jun., 1992)
2. Anthony C. Fisher; Frederick M. Peterson (1976) The Environment in Economics: A Survey, Journal of Economic Literature, Vol.14, No.1. (March 1976)
3. Hussen, Ahmed (2004) 'Principles of Environmental Economics', 2nd ed., Routledge
4. Field, Barry C and Field, Martha K (2002) 'Environmental Economics: An Introduction', 3rd ed., McGraw Hill Irwin

5. Singh, Katar and Shishodia, Anil (2007) 'Environmental Economics: Theory and Applications', Sage
6. Maureen L. Cropper; Wallace E. Oates (1992) Environmental Economics: A Survey, Journal of Economic Literature, Vol. 30, No. 2. (Jun., 1992)
7. Kolstad, Charles D (2003) 'Environmental Economics', OUP
8. Thomas, Janet M and Callan, Scott J (2007) 'Environmental Economics', Thomson South-Western, India ed.
9. Bhattacharya, R N (2001) 'Environmental Economics: An Indian Perspective', Oxford
10. Tietenberg, Tom 'Environmental and Natural Resource Economics', 6th ed., Pearson
11. Shanker, U (2003) 'Environmental Economics', OUP

#### **14. Econ 514 Labour Economics (2+0)**

Theoretical Issues in Labour Economics  
 Labour supply: Measuring the labour force- Workers preferences - Time and budget constraints, Hours of work decision- Labour demand: Production function, Employment decision in the short run and long run, Long run demand for labour- Labour market equilibrium: Equilibrium in a single competitive labour market, Competitive equilibrium across labour markets, Non competitive labour markets, Cobweb model

Wages, Alternative Pay Schemes and Labour efficiency  
 Wages: Perfect Competition – Homogenous workers and Jobs, Wage Differentials – Heterogeneous Workers and Jobs, The Hedonic Wage Function. Alternative pay schemes and labour efficiency: Economics of fringe benefits, Theory of optimal fringe benefits, Efficiency wage payments, deferred payments schemes, Labour Efficiency: Education in the labour market, Schooling model-Labour Productivity, Unemployment and Migration  
 Labour productivity: Concept and measurement, Wages, Prices and Employment. Unemployment: Measurement, The Stock–Flow model, Frictional, Structural and Demand– Deficient unemployment- reducing unemployment – Public policies.

Labour mobility: Types Migration as an investment in human capital- Determinants of migration- Consequences of migration- The Economic Benefits of Immigration-Labour Market Discrimination- Trade Union and Collective Bargaining  
 Labour market discrimination: Race and gender in the labour market- The Crowding Model Employer and Employee discrimination- measuring discrimination – The Oaxaca Decomposition-Trade Union – Determinants of union membership

Economic Impact of Unions - Union wage advantage- Efficiency and Productivity of Unionism. Collective bargaining: Economic sanctions of collective bargaining- bargaining power in collective bargains counteracting pressures – Employer’s resistance- Potential impact on union-Agricultural Labour and Unit Market Agricultural workers-categories and nature of employment- Problems of agricultural workers and remedial measures- Interlocking of factor markets- Agricultural Unit and Rural co-operatives Kisan Credit Cards (KCCs) and NABARD- Agricultural price policy- Food Security and Public Distribution System

### Lesson Plan

Sl. No	Topic	Hours of Lecture
1	Theoretical Issues in Labour Economics Labour supply	1
2	Measuring the labour force- Workers preferences - Time and budget constraints, Hours of work decision	1
3	Labour demand: Production function, Employment decision in the short run and long run, Long run demand for labour	2
4	Labour market equilibrium: Equilibrium in a single competitive labour market, Competitive equilibrium across labour markets, Non-competitive labour markets	1
5	Cobweb model- Wages, Alternative Pay Schemes and Labour efficiency Wages	2
6	Perfect Competition – Homogenous workers and Jobs, Wage Differentials – Heterogeneous Workers and Jobs, The Hedonic Wage Function. Alternative pay schemes and labour efficiency	2
7	Economics of fringe benefits, Theory of optimal fringe benefits, Efficiency wage payments, deferred payments schemes, Labour Efficiency	2
8	Education in the labour market, Schooling model-Labour Productivity	2
9	Unemployment and Migration Labour productivity: Concept and measurement, Wages, Prices and Employment	2
10	Unemployment: Measurement, The Stock–Flow model, Frictional, Structural and Demand	2



11	Deficient unemployment- reducing unemployment – Public policies. Labour mobility	2
12	Types Migration as an investment in human capital- Determinants of migration Consequences of migration	2
13	The Economic Benefits of Immigration-Labour Market Discrimination- Trade Union and Collective Bargaining Labour market discrimination	2
14	Race and gender in the labour market The Crowding Model Employer and Employee discrimination measuring discrimination	2
15	The Oaxaca Decomposition-Trade Union – Determinants of union membership- Economic Impact of Unions - Union wage advantage	2
16	Efficiency and Productivity of Unionism. Collective bargaining: Economic sanctions of collective bargaining- bargaining power in collective bargains counteracting pressures	2
17	Employer’s resistance- Potential impact on union-Agricultural Labour and Unit Market Agricultural workers-categories and nature of employment	2
18	Problems of agricultural workers and remedial measures- Interlocking of factor markets	2
19	Agricultural Unit and Rural co-operatives Kisan Credit Cards (KCCs) and NABARD Agricultural price policy- Food Security and Public Distribution System	2
<b>Total</b>		<b>36</b>

### Reference

1. Butler, A.D. (1972): Labor Economics and Institutions, American Publishing Company, ND.
2. George, J.B. (1996): Labour Economics, McGraw Hill,, NY.
3. Marshall, F.R., V.M. Briggs, and A.G. King (1984): Labour Economics, Richard D. Irwin Inc. Home wood, Illinois.
4. McConnell, C.R., S.L. Brue and D.A. Macpherson (2009): Contemporary Labour Economics, McGraw Hill, NY.
5. Burton, F.J, L.K. Benham, W.W. Vaughn III and R.J. Hanagan (Eds.) (1971): Reading in Labour Market Analysis, Holt. Rinehart and Winston, Inc, USA.
6. Rees, A. (1973): Economics of Work and Pay, Harper and Row, NY.
7. Sen, A.K. (1975): Employment, Technology and Development, OUP, ND. 4. Solow, R.M. (1990): Labour Market as an Institution, Harper and Row, NY

## 15. Econ 515 Mathematical Economics (2+1)

Theory of Consumer Demand Utility maximization- derivation of demand functions – Elasticity- measurement –Slutsky equation - Direct and cross effects - Homogeneous and homothetic utility functions – Indirect utility function - Roy's identity - Linear expenditure systems -Constant elasticity models

Theory of Production Production Function – Producer's equilibrium – derivation of input demand functions – Cobb Douglas production function - CES production function -VES production function- Translog production.

Cost function: Derivation of cost as a function of output-Duality - Shepherd's lemma derivation of supply function- generalized Leontief cost function – Technological progress and production function-Theory of Markets Mathematical treatment of market equilibrium- Single goal firm and multiple goal firms Mathematical treatment of equilibrium under different market situations

Linear Programming and Input-Output Analysis Linear programming: Primal and dual problem - General linear programme – Complementary slackness theorem - Simplex Solution- Input Output Analysis: Open and closed, static and dynamic Leontief system -Technological viability - Hawkins-Simon's conditions for viability.

Decision Theory Decision theory framework-Payoff Tables-Regret Tables-Decision under uncertainty-uncertainty and risk-Methods of incorporating risk-Value of perfect information- Decision tree and its uses

Theory of Games: Two-person zero-sum game - Pure and mixed strategy - Saddle point theorem.

### **Practical**

Differential calculus-Applications of Derivatives- Derivation of cost as a function of output - Linear programming-Optimisation-Static analysis-Optimization problems as to goal equilibrium, whether of a household, business firm, or policy makerStatic (or equilibrium) analysis in which the economic unit (such as a household) or economic system (such as a market or the economy) is modelled as not changing

Comparative statics as to a change from one equilibrium to another induced by a change in one or more factors-Dynamic analysis, tracing changes in an economic system over time, for example from economic growth-LPP - Primal and dual problem- Simplex method - Decision tree problem – Game theory problems

## Lesson Plan

Sl. No	Topic	Hours of Lecture
1	Theory of Consumer Demand Utility maximization	1
2	derivation of demand functions	2
3	Elasticity measurement – Slutsky equation	1
4	Direct and cross effects - Homogeneous and homothetic utility functions	1
5	Indirect utility function - Roy's identity	1
6	Linear expenditure systems - Constant elasticity models	2
7	Theory of Production - Production Function	2
8	Producer's equilibrium – derivation of input demand functions	1
9	Cobb Douglas production function - CES production function	1
10	VES production function- Translog production	1
11	Cost function: Derivation of cost as a function of output-Duality	2
12	Shepherd's lemma derivation of supply function- generalized Leontief cost function	2
13	Technological progress and production function-Theory of Markets Mathematical treatment of market equilibrium	1
14	Single goal firm and multiple goal firms' Mathematical treatment of equilibrium under different market situations	2
15	Linear Programming and Input-Output Analysis	2
16	Linear programming: Primal and dual problem - General linear programme	2
17	Complementary slackness theorem - Simplex Solution	2
18	Input Output Analysis: Open and closed, static and dynamic Leontief system	2
19	Technological viability - Hawkins-Simon's conditions for viability	2
20	Decision Theory Decision theory framework-Payoff Tables Regret Tables-Decision under uncertainty-uncertainty and risk	2
21	Methods of incorporating risk-Value of perfect information-Decision tree and its uses	2

22	Theory of Games: Two-person zero-sum game - Pure and mixed strategy - Saddle point theorem	2
<b>Total</b>		<b>36</b>

### Practical Schedule

Sl. No	Topic	Hours of Lecture
1	Differential calculus	6
2	Linear programming problem	6
3	whether of a household, business firm, or policy	4
4	maker Static (or equilibrium) analysis in which the economic unit	4
5	Dynamic analysis	4
6	Decision tree problem	6
7	Game theory problems	6
<b>Total</b>		<b>36</b>

### References

1. Allen R.G.D (1956): Mathematical Economics- Macmillan Co. Ltd.
2. Birchnhall C and Grout P (1984): Mathematics for Modern Economics- Philip Allen. Harness and Noble Books, Oxford.
3. David. F Heithfield and Soren Wibe (1987): Introduction to Cost and Production Functions- Macmillan Education Ltd.
4. Eugene Silberberg (1990): The Structure of Economics: A Mathematical Analysis Second Edition, McGraw Hill International Ltd.
5. J.M Henderson and R.E Quandt (1980): Microeconomic Theory: A Mathematical Approach- McGraw Hill International Ltd.
6. Michel D. Intriligator (1980): Econometric Models, Techniques and Applications Prentice Hall of India Ltd.
7. Alpha C. Chiang (1988): Fundamental Methods of Mathematical Economics- McGraw Hill International Edition.
8. Amitabh Kundu, et. al (1976): Input Output Framework and Economic Analysis- Centre for the Study of Regional Development, New Delhi.

9. Krishna K.L (ed.) (1987): Econometric Applications in India- Oxford University Press, New Delhi.

10. Barry Bressler: A Unified Introduction to Mathematical Economics.

### **16 Econ 516 Econometric Methods and Application (2+1)**

Simple Linear Regression Model Nature and scope of Econometrics-Economic theory and mathematical economics-Methodology of econometrics-Uses of econometrics

The concept of PRF -Significance of stochastic error term-The SRF Problem of estimation-Method of ordinary least squares-Assumptions underlying the method of least squares-Properties of estimators- Gauss Markov theorem-Coefficient of determination,  $r^2$  -Normality assumption

Hypothesis testing- t and F tests-P value- Practical versus statistical significance-Prediction Method of maximum likelihood-Maximum likelihood estimation of two variables model

Multiple Regression Analysis The three variable model-OLS estimation of partial regression coefficients-Multiple coefficient of determination  $R^2$  and adjusted  $R^2$

Hypothesis testing-Testing the overall significance of the regression model-F test-Testing the equality of two regression coefficients-Restricted least squares-Chow test General k variable regression model- Matrix approach to estimation and derivation of the properties of OLS estimators Econometric Problems Multicollinearity-Nature, consequences, detection and remedial measures-Autocorrelation-Nature, consequences, detection, and remedial measures-Heteroskedasticity-Nature, consequences, detection and remedial measures Extensions of Two Variables and Dummy Variable Regression Model Regression through the origin-Functional forms of regression models, log-log, log-lin, lin-log and reciprocal models- Dummy variable-ANOVA models-ANCOVA models-Dummy variable trap-Dummy variables and seasonal analysis-Structural analysis-Piecewise linear regression-Model Specification and Diagnostic Testing Types of specification errors-Detection and consequences-RESET-Errors of measurement -Consequences, remedies-Qualitative response regression models-Linear probability model, Logit and Probit.

#### **Practical**

Simple linear regression problem – method of OLS, estimation – testing of hypothesis problem – F test – t test – multiple regression problems – derivations - Econometric Problems Multicollinearity Nature - Extensions of Two Variables and Dummy Variable Regression Model - ANOVA Problems- ANCOVA problems - models-Dummy variable trap-Dummy variables and seasonal analysis-Structural analysis-Piecewise linear regression-Model

Specification and Diagnostic Testing Types of specification errors-Detection and consequences

**Lesson plan**

<b>Sl. No</b>	<b>Topic</b>	<b>Hours of Lecture</b>
1	Nature and scope of Econometrics-Economic theory and mathematical economics-Methodology of econometrics-Uses of econometrics	1
2	Simple Linear Regression Model -The concept of PRF -Significance of stochastic error term-The SRF	2
3	Problem of estimation- Method of ordinary least squares-Assumptions underlying the method of least squares	2
4	Properties of estimators- Gauss Markov theorem-Coefficient of determination, $r^2$	1
5	Normality assumption-Hypothesis testing- t and F tests-P value- Practical versus statistical significance	1
6	Prediction Method of maximum likelihood-Maximum likelihood estimation of two variables model	1
7	Multiple Regression Analysis The three-variable model- OLS estimation of partial regression coefficients	2
8	Multiple coefficient of determination $R^2$ and adjusted $R^2$	1
9	Hypothesis testing-Testing the overall significance of the regression model-F test	1
10	Testing the equality of two regression coefficients-Restricted least squares-Chow test	2
11	General k variable regression model- Matrix approach to estimation and derivation of the properties of OLS estimators	2
12	Econometric Problems: Multicollinearity-Nature, consequences, detection and remedial measures	2
13	Autocorrelation-Nature, consequences, detection, and remedial measures	2
14	Heteroskedasticity-Nature, consequences, detection and remedial measures	2

15	Extensions of Two Variables and Dummy Variable Regression Model: Regression through the origin-	1
16	Functional forms of regression models, log-log, log-lin, lin-log and reciprocal models	1
17	Dummy variable-ANOVA models	2
18	ANCOVA models-Dummy variable trap	1
19	Dummy variables and seasonal analysis	1
20	Structural Analysis-Piecewise linear regression	1
21	Model Specification and Diagnostic Testing -Types of specification errors- Detection and consequences	3
22	RESET-Errors of measurement -Consequences, remedies	1
23	Qualitative response regression models-Linear probability model, Logit and Probit.	3
	<b>Total</b>	<b>36</b>

### Practical schedule

Sl. No	Topic	Practical Hours
1	Simple linear regression problem – method of OLS, estimation	4
2	Testing of hypothesis problem – F test	4
3	Testing of hypothesis problem - t test	2
4	Multiple regression problems – derivations	4
5	Econometric Problems- Multicollinearity- Nature	2
6	Extensions of Two Variables and Dummy Variable Regression Model - ANOVA Problems	4
7	ANCOVA problems - models	2
8	Dummy variable trap-Dummy variables and seasonal analysis	2
9	Structural analysis-Piecewise linear regression	4
10	Model Specification and Diagnostic Testing	4
11	T Types of specification errors-Detection and consequences	4
	<b>Total</b>	<b>36</b>

## References

1. Damodar N Gujarati and Dawn C Porter (2009): Basic Econometrics, Fifth Edition, McGraw Hill International Edition.
2. Damodar N Gujarati (2011): Econometrics by Example, First Edition, Palgrave, MacMillan.
3. James H Stock and Mark W Watson (2017): Introduction to Econometrics, Third Edition, Pearson, Addison Wesley.
4. Carter Hill, William Griffiths and Guay Lim (2011): Principles of Econometrics, 4th Edition, John Wiley & Sons.
5. Jeffrey M Wooldridge (2018): Introductory Econometrics: A Modern Approach, 7th Edition, Thomson South Western.
6. Robert S Pindyck and Daniel L Rubinfeld (1998): Econometric Models and Economic Forecasts, Fourth Edition, McGraw Hill International Edition.
7. Kerry Patterson (2000): An introduction to Applied Econometrics: A Time Series Approach, First Edition, Palgrave.
8. Walter Enders (2010): Applied Econometric Time Series, Third Edition, Wiley India Edition.
9. Richard Harris and Robert Sollis (2006): Applied Time Series Modeling and Forecasting, First Edition, Wiley Student Edition.
10. Dimitrios Asteriou and Robert Hall (2015): Applied Econometrics, 3rd Edition, Oxford University Press.
11. Jack Johnston and John Dinardo (1998): Econometrics Methods, Fourth Edition, The McGraw Hill Companies.
12. William H Greene (2018): Econometric Analysis, 8th Edition, Pearson Education.
13. Christopher Dougherty (2007): Introduction to Econometrics, Third Edition, Oxford University Press.
14. Chris Brooks (2012): Introductory Econometrics for Finance, 3rd Edition, Cambridge.
15. Hamid R Seddighi (2012): Introductory Econometrics- A Practical Approach, Routledge.
16. Chandan Mukherjee, Howard White and Marc Wuyts (1998)-Econometric and Data Analysis for Developing Countries, First Edition, Routledge.
17. Peter Kennedy (2013): A Guide to Econometrics, 6th Edition, Wiley- Blackwell.
18. AH Studenmund: Using Econometrics: A Practical Guide, Fifth Edition, Pearson Education.



## 17 Econ 517 Behavioural Economics (2+0)

Introduction to behavioural economics – Behavioural economics and the standard economic models – History and evolution: the neoclassical approach, resurgence of psychology and birth of behavioural economics- Experimental Method-Reasons to run experiments in economics – Building an experimental sample – Methodological stand points – Transferring experimental results into reality – statistical analysis-Models of Decision Making and Anomalies in Preferences-Rationality issue: assumptions and axioms under standard economic models – Weaknesses of standard economic model: Failure of transitivity, reference dependence, failure of invariance and failure of dominance and invariance – Reason based choices –Biases in judgements – Heuristics-Decision Making under Risk and Uncertainty

Expected Utility Theory – Anomalies in Expected Utility Theory: Common consequence effect, common ratio/certainty effect – Conventional alternatives to Expected Utility Theory: Disappointment theory, Decision-weighting theories, Rank dependent theory – Non-conventional-alternatives to Expected Utility Theory: Regret Theory, Prospect Theory

Decisions from-Description versus Decisions from Experience Inter-temporal Decision Making-Discounted Utility Model, Time Discounting, Time Preferences – Origins of Discounted Utility– Discounted Utility Anomalies – Alternatives to Discounted Utility Model: Model of Hyperbolic-Discount, Modifying the Instantaneous Utility Function, More Radical Models.

### Lesson Plan

Sl. No	Topic	Hours of Lecture
1	Introduction-Introduction to behavioural economics – Behavioural economics and the standard economic models	1
2	History and evolution: the neoclassical approach, resurgence of psychology and birth of behavioural economics	1
3	Experimental Method-Reasons to run experiments in economics – Building an experimental sample	2
4	Methodological stand points – Transferring experimental results into reality	2

5	statistical analysis-Models of Decision Making and Anomalies in Preferences	2
6	Rationality issue: assumptions and axioms under standard economic models	2
7	Weaknesses of standard economic model: Failure of transitivity, reference dependence, failure of invariance and failure of dominance and invariance	2
8	Reason based choices –Biases in judgements – Heuristics-Decision Making under Risk and Uncertainty	2
9	Expected Utility Theory – Anomalies in Expected Utility Theory	1
10	Common consequence effect, common ratio/certainty effect	2
11	Conventional alternatives to Expected Utility Theory	2
12	Disappointment theory, Decision-weighting theories, Rank dependent theory	2
13	Non-conventional-alternatives to Expected Utility Theory	2
14	Regret Theory, Prospect Theory – Decisions from-Description versus Decisions from Experience	2
15	Inter-temporal Decision Making-Discounted Utility Model, Time Discounting, Time Preferences	2
16	Origins of Discounted Utility– Discounted Utility Anomalies	2
17	Alternatives to Discounted Utility Model	2
18	Model of Hyperbolic-Discount, Modifying the Instantaneous	2
19	Utility Function, More Radical Models	2
<b>Total</b>		<b>36</b>

**References:**

1. Wilkinson, Nick and Matthias Klaes (2012): An Introduction to Behavioural Economics, Palgrave Macmillan.
2. Camerer, Colin F. and George Loewenstein, & Matthew Rabin: (2003): Advances in Behavioral Economics, Princeton University Press.